

AMENDMENTS TO THE DRAWINGS

The attached formal drawings include changes to Figs. 5, 6, and 9. Specifically, Figs. 5, 6, and 9 have been amended to correct the cross-hatching. No new matter has been added. Entry of the enclosed drawings is respectfully requested.

Attachment: Replacement Drawing Sheets

REMARKS

Claims 1-3, 5-18, 20, and 21 are pending. In the present Amendment, Claims 1 and 16 are amended for the reasons discussed below, thereby leaving Claims 2, 3, 5-15, 17, 18, 20, and 21 unchanged. Claims 4 and 19 were previously cancelled.

Interview

Applicant's attorneys appreciate the Examiner's time and consideration during the telephone interview on June 30, 2005. During the interview, Applicant's attorney, Stephen A. Gigot (Registration No. 51,232) and the Examiner discussed the publication of the present application as explained in greater detail below.

Published Application

Applicant notes that the present application was published on January 20, 2005 as U.S. Patent Application Publication No. 2005/0012334 (the "'334 publication"). Applicant also notes that the '334 publication includes a number of material mistakes. Specifically, the '334 publication appears to include the subject matter of U.S. Patent Application No. 10/621,889 (the "'889 application").

Applicant provided a copy of the '889 application in an information disclosure statement mailed May 24, 2004. From a review of the '334 publication and the Patent Application Information Retrieval ("PAIR") records for the present application, it appears that the Patent Office incorrectly assumed that the '889 application was provided as an amendment and mistakenly included the subject matter of the '889 application in the '334 publication.

After discussing this matter with the Examiner and because the subject matter of the '889 application was not approved for entry, Applicant understands that the Patent Office will correct its errors when and if the present application issues as a patent. Accordingly, the present response makes reference to and makes amendments to the subject matter included in the present application prior to the improper inclusion of the subject matter from the '889 application.

Drawing Objections

The drawings stand objected to under M.P.E.P. § 608.02 because, according to the Examiner, “the cross-hatching for the insert should be cross-hatching that corresponds to plastic”. Accordingly, Applicant has amended Figs. 5, 6, and 9 to include the correct cross-hatching. In view of the drawing amendments, Applicant respectfully requests withdrawal of the objections to the drawings.

Claim Objections

The Examiner objected to Claims 1-3, 5-18, and 20-21 for the reasons set forth in the Claim Objections section of the Office action. Applicant has amended Claims 1 and 16 in a manner similar to that suggested by the Examiner. Accordingly, Applicant respectfully requests withdrawal of the objections to Claims 1-3, 5-18, and 20-21.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 5-9, 12, 13, 16, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,742,995 (“Confer”) in view of U.S. Patent No. 4,664,958 (“Jones”), and further in view of U.S. Patent No. 6,022,504 (“Boaz”). Claims 10, 11, 14, 15, 17, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Confer in view of Jones and further in view of Boaz et al, and still further in view of U.S. Patent No. 6,517,761 (“Yoshida”). Reconsideration of the rejections is respectfully requested.

Claim 1

Claim 1 specifies a method of manufacturing a flow connector, comprising providing at least one insert of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof, the insert having a threaded bore for attachment to a threaded flow conduit, and molding onto the at least one insert a composition comprising at least one polymer to form a manifold having a wall defining an internal cavity and comprising a plurality of flow openings comprising at least one aperture defined by the at least one insert, the at least one insert being situated within the wall.

To establish a *prima facie* case of obviousness, three basic criteria must be met. *M.P.E.P.* §§ 706.02(j) and 2143.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art, not in applicants' disclosure.

Id. Applicant respectfully submits that the Examiner's proposed combination for Claim 1 does not meet the *prima facie* case of obviousness.

As acknowledged by the Examiner, Confer "fails to teach that the insert is polymeric and comprises a reinforcement material selected from the group consisting of fiberglass, an inert material and combinations thereof." See Office action, dated April 6, 2005, section entitled "Claim Rejections – 35 USC § 103". Rather, the sealed container 10 of Confer includes inserts 20 such as "pipe fittings, nuts, washers, fasteners of any suitable type, or any combination of these". Column 2, lines 26-28.

In addition, Confer does not teach or suggest, among other things, a method of manufacturing a flow connector. Confer also does not teach or suggest the acts of providing an insert having a threaded bore for attachment to a threaded flow conduit and forming a manifold having a wall defining an internal cavity and comprising a plurality of flow openings comprising at least one aperture defined by the at least one insert, the at least one insert being situated within the wall. Rather, Confer discloses a sealed container 10 for use as a storage tank. (Column 1, lines 12-17) Confer also mentions that "[t]he container wall, being *continuous... is... fluid tight*" and that it is desirable to avoid puncturing the wall surfaces of the container. Column 4, lines 17-18 (emphasis added) and Column 1, lines 21-24.

For these and other reasons, Confer does not teach or suggest the subject matter defined by independent Claim 1.

The Examiner argues that "it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ a polymeric insert instead of... [the] metal insert... [of] Confer et al in order to provide a greater margin of safety against leakage". Office action, dated April 6, 2005, section entitled "Claim Rejections – 35 USC § 103".

The Examiner also argues that “Boaz et al teaches an insert that may be made from glass-filled nylon or glass-filled polypropylene” and that “[i]n view of Boaz et al al’s teaching... it would have been obvious to one having ordinary skill in the art at the time the invention was made to form Confer et al’s insert from glass-filled nylon or glass-filled polypropylene”. Office action, dated April 6, 2005, section entitled “Claim Rejections – 35 USC § 103”. However, Applicant respectfully submits that it is improper to combine the teachings of Confer and/or Boaz with the teachings of Jones as suggested by the Examiner.

Before addressing the combination asserted by the Examiner, Applicant will address the Jones and the Boaz references. Jones does not teach or suggest, among other things, a method of manufacturing a flow connector. Rather, Jones discloses a hollow thermoplastic drum 10 for storing fluid and having an insert 15 positioned in one of the walls of the drum 10 for receiving a threaded bung 16.

In addition, Jones does not teach or suggest the act of providing at least one insert of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof. Rather, Jones discloses that the “insert 15 comprises a body of plastic material or metal such as steel or brass, high density polyethylene or nylon.” Column 2, lines 7-9.

For these and other reasons, Jones does not teach or suggest all the claim limitations of independent Claim 1.

Boaz does not teach or suggest, among other things, the act of forming a manifold having a wall defining an internal cavity and comprising a plurality of flow openings comprising at least one aperture defined by the at least one insert, the at least one insert being situated within the wall. Rather, Boaz discloses a caulking nozzle 14 having an outer lip member 14AA forming a first opening at a first end of the nozzle 14 and an outer member opening 14BA located at a second end of the nozzle 14.

For these and other reasons, Boaz does not teach or suggest the subject matter defined by independent Claim 1.

As mentioned above, Applicant respectfully submits that it is not reasonable to combine the teachings Confer with the teachings of Jones and that there is no teaching or suggestion to modify the teachings of Confer as suggested by the Examiner. As also mentioned above, Applicant respectfully submits that it is not reasonable to combine the teachings of Boaz with the

teachings of Confer and that there is no teaching or suggestion to modify the teachings of Confer as suggested by the Examiner.

Assuming arguendo that the sealed container of Confer could be modified as suggested by the Examiner, this is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation, without the benefit of Applicant's Specification, to make the necessary changes in the reference device. Ex parte Chicago Rawhide Mfg. Co., 223 U.S.P.Q. at 353. Deficiencies of the reference cannot be saved by appeals to "common sense" and "basic knowledge" without any evidentiary support. In re Zurko, 258 F.3d at 1385, 59 U.S.P.Q.2d at 1697.

The Examiner points to nothing in the prior art, and Confer is devoid of any teaching or suggestion to modify the sealed container of Confer to provide a flow connector. Confer is also devoid of any teaching or suggestion to modify the sealed container to provide an insert having a threaded bore for attachment to a threaded flow conduit. Confer is also devoid of any teaching or suggestion of forming a manifold having a wall defining an internal cavity and comprising a plurality of flow openings comprising at least one aperture defined by the at least one insert, the at least one insert being situated within the wall. The only motivation for the claimed subject matter comes from Applicant's invention, and, therefore, the Examiner's rejection is a classic case of hindsight.

Further, Confer actually teaches away from the modification suggested by the Examiner. In fact, Confer teaches away from the act of manufacturing a flow connector, providing an insert having a threaded bore for attachment to a threaded flow conduit. Confer also teaches away from the act of forming a manifold having a wall defining an internal cavity and comprising a plurality of flow openings comprising at least one aperture defined by the at least one insert, the at least one insert being situated within the wall. Confer discloses that "[t]he container wall, being continuous, is just as fluid tight as though the insert were not therein" and that "[t]he outer wall surface of [the] container 10 remains substantially continuous while the inserts are somewhat recessed from the plane of the container wall and permanently sealed therein." Column 4, lines 17-22 (emphasis added). In addition, as shown in Figs. 1, 2, 7, and 8 of Confer, the inserts 20 are secured in blind bores, which do not extend through the container wall or communicate with the interior of the sealed container 10. Moreover, Confer teaches against forming holes in the wall of the sealed container 10 and mentions that it is undesirable to

puncture or pierce the container wall because such a puncture or piercing would interrupt the integrity of the wall surfaces and may not provide a fluid-tight seal. Column 1, lines 21-26.

In summary, Confer, Jones, and Boaz, either alone or in combination, do not teach or suggest the subject matter defined by independent Claim 1. In addition, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. For these and other reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness of Claim 1 based upon the prior art as required by 35 U.S.C. § 103. Accordingly, independent Claim 1 is allowable. Dependent Claims 2, 3, and 5-15 depend from independent Claim 1 and are allowable for the same and other reasons.

Claims 10, 14, and 15

Claim 10 depends from Claim 1 and specifies that the at least one insert comprises circumferential grooves located on an exterior surface disposed around the threaded bore. As mentioned above, Confer, Jones, and Boaz do not teach or suggest the subject matter of Claim 1. Moreover, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. Claims 10, 14, and 15 depend from Claim 1 and are allowable for the same and other reasons.

Yoshida does not cure the deficiencies of Confer, Jones, and Boaz. In particular, Yoshida does not teach or suggest, among other things, the act of providing at least one insert of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof. Rather, Yoshida discloses a method of inserting metal nuts 3 in holes 2a, 2b formed in a thermoplastic resin base 1.

For these and other reasons, Yoshida does not teach or suggest all the claim limitations of Claim 10. Accordingly, Claim 10 is allowable. Claim 14 depends from Claim 10 and is allowable for the same and other reasons.

Claim 11

Claim 11 depends from Claim 1 and specifies that the at least one insert comprises spurs located on an exterior surface disposed around the threaded bore.

As mentioned above, Confer, Jones, and Boaz do not teach or suggest the subject matter of Claim 1. Moreover, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. Claim 11 depends from Claim 1 and is allowable for the same and other reasons.

Yoshida does not cure the deficiencies of Confer, Jones, and Boaz. In particular, Yoshida does not teach or suggest, among other things, the act of providing at least one insert of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof. Rather, Yoshida discloses a method of inserting metal nuts 3 in holes 2a, 2b formed in a thermoplastic resin base 1.

For these and other reasons, Yoshida does not teach or suggest all the claim limitations of Claim 11. Accordingly, Claim 11 is allowable. Claim 15 depends from Claim 11 and is allowable for the same and other reasons.

Claim 16

Claim 16 specifies an insert for manufacturing a manifold having a wall defining an internal cavity and a plurality of flow openings, comprising a threaded bore for attachment to a threaded flow conduit, the insert being of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof, the threaded bore defining one of the plurality of flow openings of the manifold.

Applicant respectfully submits that the Examiner's proposed combination for Claim 16 does not meet the *prima facie* case of obviousness.

Confer does not teach or suggest, among other things, an insert for manufacturing a manifold having a plurality of flow openings. Confer also does not teach or suggest a threaded bore for attachment to a threaded flow conduit, the threaded bore defining one of the plurality of flow openings of the manifold. Rather, as mentioned above, Confer discloses a sealed container

10 for use as a storage tank. (Column 1, lines 12-17) Confer also mentions that “[t]he container wall, being *continuous... is... fluid tight*” and that it is desirable to avoid puncturing the wall surfaces of the container. Column 4, lines 17-18 (emphasis added) and Column 1, lines 21-24.

In addition, Confer does not teach or suggest, among other things, a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof. Rather, the sealed container 10 of Confer includes inserts 20 such as “pipe fittings, nuts, washers, fasteners of any suitable type, or any combination of these”. Column 2, lines 26-28.

For these and other reasons, Confer does not teach or suggest the subject matter defined by independent Claim 16.

The Examiner argues that “it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ a polymeric insert instead of... [the] metal insert... [of] Confer et al in order to provide a greater margin of safety against leakage”. Office action, dated April 6, 2005, section entitled “Claim Rejections – 35 USC § 103”.

The Examiner also argues that “Boaz et al teaches an insert that may be made from glass-filled nylon or glass-filled polypropylene” and that “[i]n view of Boaz et al al’s teaching... it would have been obvious to one having ordinary skill in the art at the time the invention was made to form Confer et al’s insert from glass-filled nylon or glass-filled polypropylene”. Office action, dated April 6, 2005, section entitled “Claim Rejections – 35 USC § 103”. However, Applicant respectfully submits that it is improper to combine the teachings of Jones and/or Boaz with the teachings of Confer as suggested by the Examiner.

Before addressing the combination asserted by the Examiner, Applicant will address the Jones and the Boaz references. Jones does not teach or suggest, among other things, an insert for manufacturing a manifold having a wall defining an internal cavity and a plurality of flow openings. Rather, Jones discloses a hollow thermoplastic drum 10 for storing fluid and having an insert 15 positioned in one of the walls of the drum 10 for receiving a threaded bung 16.

In addition, Jones does not teach or suggest the act of providing at least one insert of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass, an inert material, and combinations thereof. Rather, Jones discloses that the “insert 15 comprises a body of plastic material or metal such as steel or brass, high density polyethylene or nylon.” Column 2, lines 7-9.

For these and other reasons, Jones does not teach or suggest all the claim limitations of independent Claim 16.

Boaz does not teach or suggest, among other things, an insert for manufacturing having a wall and a plurality of flow openings, a threaded bore defining one of a plurality of flow openings of the manifold, and at least one insert being situated within the wall. Rather, Boaz discloses a caulking nozzle 14 having an outer lip member 14AA forming a first opening at a first end of the nozzle 14 and an outer member opening 14BA located at a second end of the nozzle 14.

For these and other reasons, Boaz does not teach or suggest the subject matter defined by independent Claim 16.

In summary, Confer, Jones, and Boaz, either alone or in combination, do not teach or suggest the subject matter defined by independent Claim 16. In addition, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. For these and other reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness of Claim 16 based upon the prior art as required by 35 U.S.C. § 103. Accordingly, independent Claim 16 is allowable. Dependent Claims 17, 18, 20, and 21 depend from independent Claim 16 and are allowable for the same and other reasons.

Claim 17

Claim 17 depends from Claim 16 and specifies that circumferential grooves are located on an exterior surface disposed around the threaded bore.

As mentioned above, Confer, Jones, and Boaz do not teach or suggest the subject matter of Claim 16. Moreover, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. Claim 17 depends from Claim 16 and is allowable for the same and other reasons.

Yoshida does not cure the deficiencies of Confer, Jones, and Boaz. In particular, Yoshida does not teach or suggest, among other things, an insert being of a composition comprising at least one polymer and a reinforcement material selected from the group consisting of fiberglass,

an inert material, and combinations thereof. Rather, Yoshida discloses a method of inserting metal nuts 3 in holes 2a, 2b formed in a thermoplastic resin base 1.

For these and other reasons, Yoshida does not teach or suggest all the claim limitations of Claim 17. Accordingly, Claim 17 is allowable.

Claim 18

Claim 18 depends from Claim 16 and specifies that the spurs are located on an exterior surface disposed around the threaded bore.

As mentioned above, Confer, Jones, and Boaz do not teach or suggest the subject matter of Claim 16. Moreover, there is no teaching or suggestion to modify the sealed container 10 of Confer as suggested by the Examiner. Further, Confer actually teaches away from the modification suggested by the Examiner. Claim 18 depends from Claim 16 and is allowable for the same and other reasons.

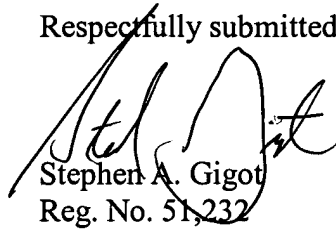
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For these and other reasons, Yoshida does not teach or suggest all the claim limitations of Claim 18. Accordingly, Claim 18 is allowable.

CONCLUSION

In view of the foregoing, entry of the present Amendments and allowance of Claims 1-3, 5-18, 20, and 21 are requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,



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